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(56) Documents Cited  
**GB 1060361 A** **EP 0182752 A2**

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## (54) Multi-container assembly

(57) A multi-container assembly consists of a plurality of containers 10 - 12 screw threadedly joined end to end, each container having an open end 13, a closed end 14 and a threaded portion 13A, 14A at each end. The containers may have the same or different capacities and their open ends may be closed by foil seals and, prior to assembly, lids (16, figure2). A screw cap 17 preferably seals the top end of the assembly. The top container may include a spray dispenser. The containers may contain personal care materials such as creams and deodorants.

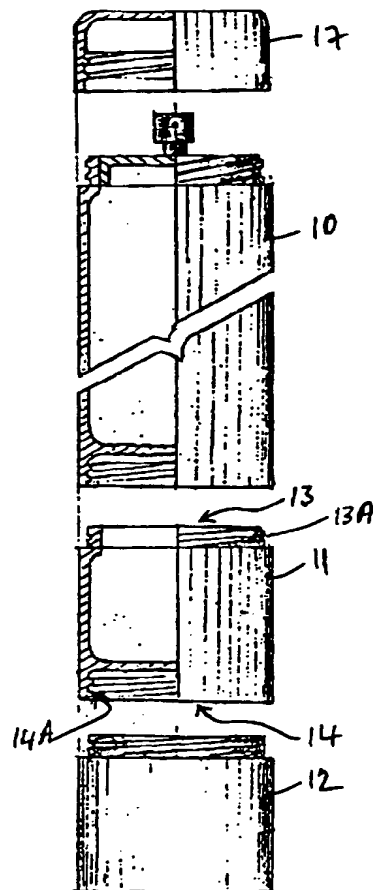


Fig 1

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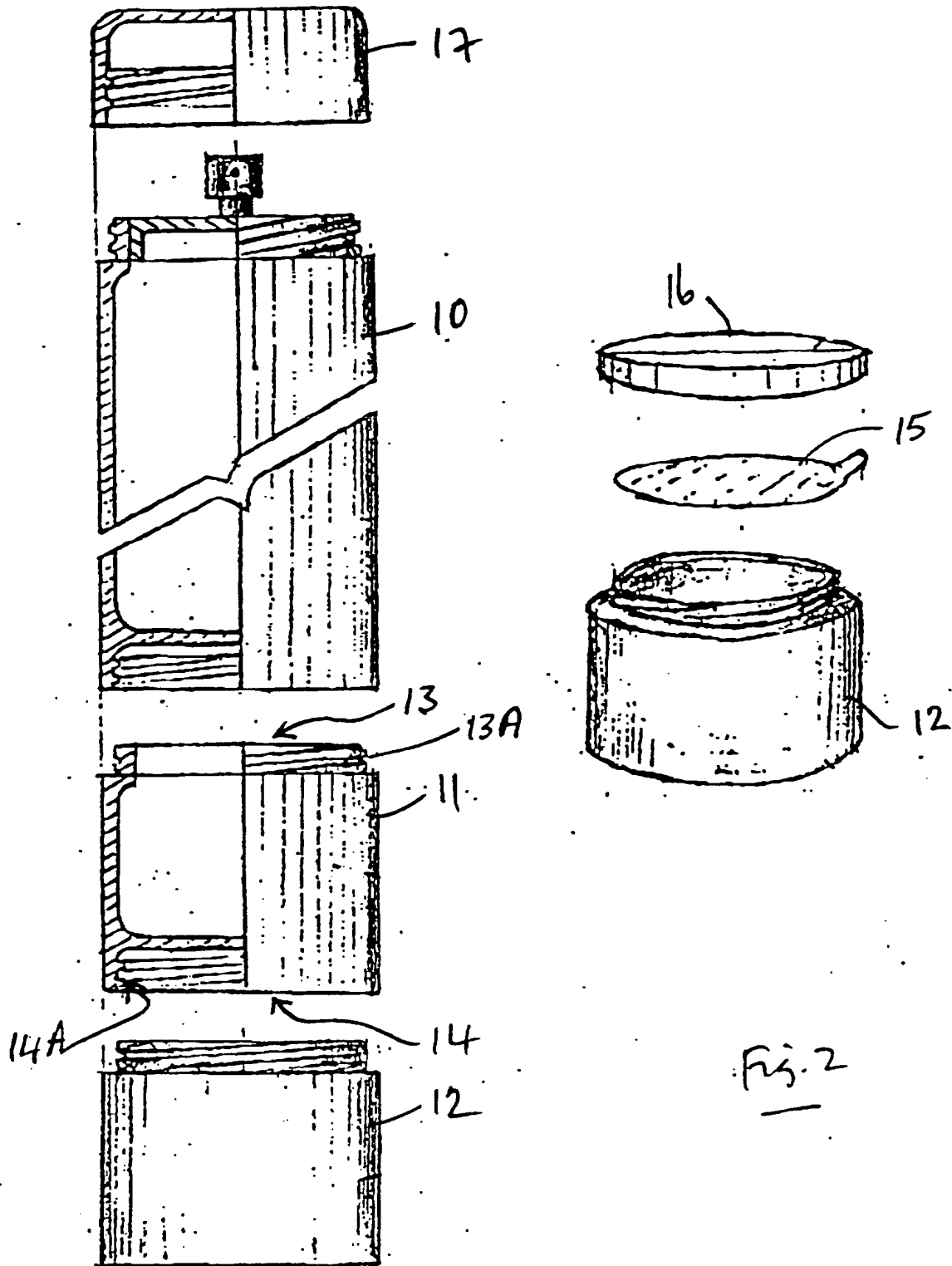


Fig 1

Fig. 2

PACKAGING

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The invention relates to packaging.

The invention relates more particularly to packaging for personal care materials such as hand and face creams, personal cleansing materials, de-odourant, and the like. Most people have a range of such materials which they use regularly or from time to time and which they normally wish to store in a bathroom, a handbag or transport with them in a suitcase. It is also usual that in some situations for example during a short visit away from home, only some of the regularly used materials may be taken along. Presently, a personal range of care materials, often a very individual choice of market available materials, is packaged, sold and transported individually leading to problems of significant cost, effort and inconvenience respectively.

It is an object of the invention to overcome or at least reduce these problems.

According to the invention, there is provided a composite packaging arrangement for different personal care materials comprising a number of different compartments each for a respective one of the materials, each compartment comprising an open end with a threaded part and a closed end with a threaded part arranged so that the compartments can be screwed and sealed together end to end.

The open ends preferably have a male threaded part and the closed ends a female threaded part.

All the compartments may be generally the same effective capacity although they may be differently proportioned.

A removable thin seal may be provided covering the open ends of the compartments.

- 5     A cap for covering the open end of a compartment before the compartment is fitted to the arrangement may be provided.

A threaded lid may be arranged to fit and seal one end of the arrangement.

- 10    A spray gadget may be adapted to one of the compartments for liquid dispensing.

A composite packaging arrangement according to the invention will now be described by way of example with reference to the accompanying drawings in which:-

- 15    Figure 1 is an exploded part sectional side view of the arrangement; and

Figure 2 is an exploded side view of one compartment of the arrangement.

- 20    Referring to the drawings, in Figure 1 a number of separate compartments, only three compartments 10, 11, 12 are shown, are arranged to be fitted and sealed together end to end. Each

upper open end 13, formed with a male thread 13A, and a lower closed end 14 formed with a female thread 14A. To join, hold and seal the compartments together, respective threaded ends of the compartments are tightly screwed together.

5 Initially, or conveniently the compartments are provided as shown in Figure 2 and each charged with a skin cream, or other personal care material, and fitted with a foil seal 15 and possibly a thin lid 16. When a compartment is first fitted into the composite arrangement of Figure 1, the seal 15 may be left in place to improve sealing between  
10 the compartment or lessen any likelihood of cream leaking out of the compartment. In other words, when the arrangement of Figure 1 is first assembled for storage and transportation before use, say, the seals 15 may be left in position covering each of the open ends of the compartments. Once the material in the compartment is used at all,  
15 the respective seal is normally removed and discarded.

It will be noted that the compartment 10 contains a spray can which may contain any usual material for personal use including de-odourant, scent, shaving cream and so on. In the described example, the compartment 10 has a somewhat special lid 17, in that lid 17 is  
20 somewhat deeper than it would need to be to seal the top of the compartment 11, say, so as to accommodate the spray can nozzle. On the other hand, this particular lid 17 may be provided as a "standard" lid because its "deeper" configuration would work generally satisfactorily anyway to fit over and seal off the tops of the  
25 container 11 or 12 as required.

Another lid or end piece (not shown) may be provided to fit on to the bottom of the container 12. Such a lid is generally shallow and is provided with a male thread to fit into the base of the compartment 12. Such a lid is generally provided for aesthetic reasons but its  
5 inside could be used for storing a small quantity of cream or the like, or a few hair pins, or tooth picks, or a lock key or similar.

In Figure 1, the capacities of the compartments 11 and 12 are generally similar. However, it will be appreciated that the actual capacities of the compartment can vary both generally and  
10 comparatively. In this sense the arrangement of Figure 1 may be provided to store sufficient personal care materials for several weeks on the other hand or, be much smaller, to store only sufficient material for a few days and fit easily into a handbag or travel bag. In terms of relative size, it is clear that some materials, sun tan  
15 cream say, is used in much larger quantities than face cream so that the compartment for sun tan cream is arranged to be significantly greater relatively.

This example also illustrates indirectly another inherent advantage of embodiments of the invention. Each set of compartments and their  
20 contents can be made up to suit individual use, clearly a male user will normally require some different materials to a female user. Also, there will be no point in taking sun tan cream on a trip in the winter or when the venue of travel does not warrant it. The sun tan cream compartment can then be left at home and covered with a suitable  
25 lid, such as a lid 16 or 17 for example.

Another advantage in terms of use is that when any of the compartments is exhausted, it can normally be replaced simply by a suitable replacement. The replacement will likely be stored or purchased when required in the form shown in Figure 2, but of course filled and closed off.

Overall , embodiments of the invention enable generally "standard" shaped compartments to be made as shown in the Figures and filled with various chosen creams, lotions and liquids as desired and preferred or required by each individual user. In other words, each individual user can make up or choose a range of personal care materials to his liking and store them together neatly and safely for use. Such use may be in the home or during a trip, and from time to time some or all the materials can be stored together. A change of the chosen materials can be made as the individual taste or requirements differ or according to the season, winter or summer, or expectancy of requirements, as may change by the location of a particular holiday.

The packaging arrangements overall, and made in accordance with the invention, provide simple, variable composite packages providing compartments individually for several different materials, which may be sold as a combined range or separately. As such the materials can be transported as a range and individual materials sold as replacements separately is preferred. It is also possible to use the composite arrangement for day to day use, or for use during travel, and replenish each compartment as required from larger storage containers conveniently shelved in a bathroom, say.

CLAIMS

1. A composite packaging arrangement for different personal care materials comprising a number of different compartments each for a respective one of the materials, each compartment comprising an open  
5 end with a threaded part and a closed end with a threaded part arranged so that the compartments can be screwed and sealed together end to end.
2. An arrangement according to claim 1, in which the open ends have a male threaded part and the closed ends have a female threaded part.
- 10 3. An arrangement according to claim 1 or 2, in which all the compartments have generally the same effective capacity.
4. An arrangement according to any one of claims 1 to 3, including a removable thin seal covering the open ends of the compartments.
5. An arrangement according to any one of claims 1 to 4, including  
15 a cap covering the open end of a compartment before the compartment is fitted to the arrangement.
6. An arrangement according to any one of claims 1 to 5, including a threaded lid arranged to fit and seal one end of the arrangement.
7. An arrangement according to any one of claims 1 to 6, including  
20 a spray can fitted into one of the compartments.

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8. A composite packaging arrangement substantially as herein described with reference to the accompanying drawings.



Application No: GB 9501818.0  
Claims searched: 1 - 8

Examiner: Linda Harden  
Date of search: 18 January 1996

**Patents Act 1977**  
**Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:  
UK CI (Ed.O): B8D (DA, DSC2, DSX3)  
Int CI (Ed.6): B65D 21/02, 69/00 ; A45D 34/06, 40/00, 40/24  
Other: Online : WPI

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
X	GB1060361 (CLERICI) - see figures 1 and 2	1 - 8
X	EP0182752A2 (NOVOS ALONSO) - see figures 1 and 6	1, 3, 6

X Document indicating lack of novelty or inventive step  
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